

REMARKS

Claims 5-13 and 22 are pending in this application. Claims 1-4 and 14-21 have been canceled.

This application is a Continuation of U.S. Application Serial No. 09/551,566, filed on April 18, 2000, now allowed, which is a Divisional of U.S. Application Serial No. 08/941,720, filed October 1, 1997, now U.S. Patent No. 6,143,486, issued November 7, 2000.

Applicants submit that the present application is ready for examination on the merits. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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IN THE CLAIMS

Please amend the following claims.

9. (Amended) The optical information recording medium according to Claim [1, 2 or] 5, wherein to carry out an initialization operation by irradiating an energy beam for crystallization, after forming the phase-change type optical recording layer, the recording layer is locally melted and crystallized during resolidification.

[illegible]

applied, and to form mark portions having a length nT where T is a clock period and n is an integer of at least 2, writing power P_w and bias power P_b are applied in such a manner that when the time for applying writing power P_w is represented by $\alpha_1 T, \alpha_2 T, \dots, \alpha_m T$, and the time for applying bias power P_b is represented by $\beta_1 T, \beta_2 T, \dots, \beta_m T$, the laser application period is divided into m pulses in a sequence of $\alpha_1 T, \beta_1 T, \alpha_2 T, \beta_2 T, \dots, \alpha_m T, \beta_m T$ to satisfy the following formulae:

when $2 \leq i \leq m-1, \alpha_i \leq \beta_i$;

$m = n - k$, where k is an integer of $0 \leq k \leq 2$, provided that $n_{\min} - k \geq 1$, where n_{\min} is the minimum value of n ; and

$\alpha_1 + \beta_1 + \dots + \alpha_m + \beta_m = n - j$, where j is a real number of $0 \leq j \leq 2$;

and under such conditions that $P_w > P_e$, and $0 < P_b \leq 0.5 P_e$, provided that when $i = m, 0 < P_b \leq P_e$.

12. (Amended) An optical recording method, which comprises carrying out mark length modulation recording and erasing on the optical information recording medium as defined in Claim [1, 2 or] 5 by modulating a laser power among at least 3 power levels, wherein to form inter-mark portions, erasing power P_e capable of recrystallizing amorphous mark portions is applied, and to form mark portions having a length nT where T is a clock period and n is an integer of at least 2, writing power P_w and bias power P_b are applied in such a manner that when the time for applying writing power P_w is represented by $\alpha_1 T, \alpha_2 T, \dots, \alpha_m T$, and the time for applying bias power P_b is represented by $\beta_1 T, \beta_2 T, \dots, \beta_m T$, the laser application period is divided into m pulses in a sequence of $\alpha_1 T, \beta_1 T, \alpha_2 T, \beta_2 T, \dots, \alpha_m T, \beta_m T$ to satisfy the following formulae:

when $2 \leq i \leq m-1, \alpha_i \leq \beta_i$;

minimum value of n ; and

$$\alpha_1 + \beta_1 + \dots + \alpha_m + \beta_m = n - j, \text{ where } j \text{ is a real number of } 0 \leq j \leq 2;$$

and under such conditions that $P_w > P_e$, and $0 < P_b \leq 0.5 P_e$, provided that when $i = m$, $0 < P_b \leq P_e$.

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